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ABSTRACT

It is theorized that in English, phonology and semantics are involved in speech production, but the two are linked through syntax. This pilot study compared through error analysis the imitation of English sentences as produced by a Spanish-English speaking mother and her two bilingual daughters, ages six and seven, to determine the syntactic interference of Spanish on the imitation of spoken English. The study also piloted the Linguistic Structures Repetition Test which was initially developed for English speakers to see whether it could be used with bilinguals to indicate language dominance. Results of the study indicated that the test has potential for use in establishing language dominance of bilinguals. It can also be used in error analyses to determine errors due to language interference as well as errors due to language development. (Author)e

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by

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March, 1976

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ABSTRACT

It is theorized that in English, phonology and semantics are involved in speech production, but the two are linked through syntax. This pilot study compared through error analysis the imitation of English sentences as produced by a Spanish-English speaking mother and her two bilingual daughters, ages six and seven, to determine the syntactic interference of Spanish on the imitation of spoken English. The study also piloted the Linguistic Structures Repetition Test which was initially developed for English speakers to see whether it could be used with bilinguals to indicate language dominance. Results of the study indicated that the test has potential for use in establishing language dominance of bilinguals. It can also be used in error analyses to determine errors due to language interference as well as errors due to language development.

AN ERROR ANALYSIS OF A SPANISH-ENGLISH-SPEAKING MOTHER AND HER TWO BILINGUAL CHILDREN AS DETERMINED BY THE LINGUISTIC STRUCTURES REPETITION TEST: A PILOT STUDY

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Much of the literature which deals with testing for language dominance concludes that measures of language dominance are sparce, contradictory and open to questions of validity and reliability. Zirkel (1974) states that there is a pressing need for practical instrumentation to determine the degree of bilingualism among students who have been variously and vaguely designated as "non-English-speaking," "Spanish-speaking," "Spanish-surnamed," "Spanish-oriented," and "bilingual." He cites A. Bruce Gaarder who as early as 1965 called for a survey instrument to determine the "bilingual dominance configuration" of such students.

E. G. Malherbe (Kelly, 1969) is doubtful whether bilingualism per se can be measured apart from the situation in which it is to function in the social context in which a particular individual operates linguistically. W. F. Mackey (Kelly, 1969) suggests that measurement scales presuppose standard units of measure which do not exist in language. Since there are no discernible units, one has measures of indices which are assumed to reflect certain variables of bilingualism.

Several researchers have explored the possibility of testing language dominance of bilinguals through imitation techniques (Fraser, et al., 1963; McNeill, 1966; Natalicio and Williams, 1970; Burt, 1973; Zirkel, 1974; Markman et al., 1975).

Fraser (1963) speculates about psychological operations underlying the imitation task. Perhaps imitation is not a purely perceptual-motor task but usually works through the meaning system. He cites Decroly who has argued that a child can only distinguish those words to which he gives a meaning and since perceptual differentiation is necessary for imitation, imitation cannot succeed when understanding is absent. Another explanation is that speech is a much simpler system than reference. Speech can be analyzed into a small number of distinctive features on both the acoustic and articulational levels. The total domain of reference does not yield to any such simple systematic analysis. Consequently, one would expect control of the speech system to be more complete than control of the reference system.

The theory proposed by Chomsky is that in English, phonology and semantics are involved in speech production, but the two are linked through syntax. He states:

> The grammar of a language is a system of rules that determines a certain pairing of sound and meaning. It consists of a syntactic component, a semantic component, and a phonological component. . . grammar as a whole relates semantic and phonetic interpretations, the association being mediated by the rules of the syntactic component that define paired deep and surface structures. The study of the three components will, of course, be highly integrated; each can be investigated to the extent that it is clear what conditions the others impose upon it (Chomsky, 1972, 125).

The concept of syntactic components which may operate in imitation of English by bilinguals suggested the following study. In addition, the investigator wished to pilot the Linguistic

Structures Repetition Test to see whether it could be used with bilinguals to indicate language dominance through analysis of errors of syntactic structures.

DEFINITIONS

For the purpose of this study, the following definitions are operationally defined or footnoted:

Production: as opposed to reception, is the oral imitation of a model speaker.

Correct performance: In the sense of productive imitation of English grammatical systems, it means that the subjects' responses are model performances of the controlled stimuli, i.e., utterances of the investigator who is a native English speaker.

Error: Any mistake in syntax or semantics in the spoken language of the bilingual speaker as determined by the model English speaker.

Overgeneralization: Interference from within English itself. It is explained by the learner's attempts to simplify and regularize the linguistic complexities peculiar to English (Taylor, 1975,74).

Interference: Refers to the overlapping of two languages, i.e., to the simultaneous application of the patterns of two languages to the same item (Kelly, 1969. 122).

PROCEDURE

SUBJECTS

The subjects of this study were a Spanish-English speaking mother from Bogotá, Colombia, who has lived in the United States and spoken English for eight years; and her two daughters, Maria,

aged six in the first grade, and Carolina, aged seven in the second grade, who were born in the United States. They speak Spanish at home and English with their peers in school and in the neighborhood. The father is Cuban and he, as well as the mother, speaks English with a Spanish accent. However, while the mother often confuses English syntax, the father, a graduate of Georgia Tech University, speaks standard English. The two girls speak Spanish and English equally as well with the exception of their pronunciation of the Spanish /r̄/ (the voiced alveolar oral multiple flap which has no equivalent in English); they substitute the English retroflex instead.

THE INSTRUMENT

The Linguistic Structures Repetition Test was constructed in 1975 by Carol J. Fisher to measure the acquisition of syntactic structures in kindergarten, first-, and second-grade English-speaking children (Fagan, et al., 1975). According to the author, content validity rests with the instrument's derivation in psycholinguistic research and its reflection of an expected developmental trend. The reliability of the test was checked using chi square analysis by examining the scoring for each pair of sentences based on the same structure from a randomly selected sample of ten tests at each grade level. This analysis revealed significant differences beyond the .001 level.

The test was chosen for the pilot study because of its ease in administering and its control of English grammatical features. which would be applicable to any speaker of English regardless of

age. The test takes about ten minutes to administer and permits the examination of specific linguistic structures which appear to be acquired during the early elementary school years. It consists of thirty-six sentences made up of words from a first-grade word list; however, the investigator read only the first twenty sentences because she found that use of all of the sentences led to fatigue on the part of the examinees.

If the subject repeated the sentence perfectly (barring all accents), it was marked "c." If she changed it, it was marked "o" and the changes made were written down. If she could not say it, it was marked "x." All sentences were recorded for easier scoring and elimination of scoring errors. Further scoring information can be obtained from ERIC document ED 091 746 (Fisher, 1972).

RESULTS

Table 1 shows the tabulation of scores of the mother and her two daughters.

Table 1

	No. Correct	No. Changed	No. Missed
Maria	6	1	13
Carolina	15	0	5
Mother	9	0	11

The tabulation of scores shows that the mother and the six-year-old daughter had a more difficult time repeating the sentences than the seven-year-old daughter. The investigator feels that two factors influenced the mother's lack of correct imitation: meaning and motor control of English phonemes. She did not understand some of the sentences and repeated what she did understand in a heavy Spanish accent. The children, on the other hand, did have motor control of English phonemes and apparently had no trouble with meaning.

DISCUSSION

Most of the grammatical errors were attributable to developmental syntactic overgeneralization or the the structure of Spanish, the first language for all three subjects. It is possible that Carolina did better than Maria because she is in the second grade and has had more experience with English, whereas Maria's ability is closer to that of her mother's. She had just started first grade at the time of the study and did not have the broader experience in English of her older sister.

The investigator speculates that four of the errors may have been caused by interference from Spanish. In two incidents, the speakers added the subordinating conjunction that (sentences 6 and 15) because in Spanish, que is not omitted from a subordinate construction and, therefore, embeddedness is more apparent. Another possible interference is found in sentence 13 in which the word got is omitted. There is no comparable construction in Spanish, hence, the omission in English. In sentence 17, the

mother says "in," a direct translation of "en" which would be used in Spanish. In sentence 7, Maria omits the indefinite article which would be omitted Spanish, "él tiene tambor."

Development errors (Politzer and Ramirez, 1973) can arise owing to the fact that children learning English as their second language may go through developmental stages similar to those characteristic for children learning English as their first language. The investigator would also suggest that adults learning English as a second language, as well as children learning English as a second language, can produce development errors similar to those of English-speaking children. For example, the mother as well as the two girls said "reindeers" which is overgeneralization produced by children learning English as their first language. Another example of development error is found in sentence two in which Maria says, "the hottest and the mostest," and in sentence 20 in which she says, "more 'citing and more easier."

IMPLICATIONS

The Linguistic Structures Repetition Test appears to be a promising instrument for discerning language transference problems of bilinguals and for giving an index of language dominance. However, further study with a larger sample needs to be conducted in order to generalize to a hypothetical population.

In addition, other factors must be taken into consideration in dealing with imitation production of bilinguals such as age, number of years in the United States, number of years speaking

English, difficulty of the English sentences, subjects' attention span and memory, and sufficient motor control of English phonemes. This area of investigation still needs a great deal of study before answers to the question of language dominance can be ascertained.

REFERENCES

Burt, M. K. The Bilingual Syntax Measure. Presentation-Demonstration at the Invitational Conference on Student Assessment in Bilingual Education sponsored by the Puerto Rican Educators Assocaition, and Harcourt, Brace and Jovanovich, New York, 1973.

Fagan, W. T., Cooper, C. R. and Jensen, J. M. Measures for Research and Evaluation in the Language Arts. NCTE Research Foundation, March 1975, 13-14.

Fisher, C. Linguistic Structures Repetition Test. Educational Resources Information Center, ERIC Document ED 091 746, 1972.

Fraser, C., Bellugi, U. and Brown, R. Control of Grammar in Imitation, Comprehension and Production. Journal of Verbal Learning and Verbal Behavior, 2, 1963, 121-135.

Kelly, L. G., editor. Description & Measurement of Bilingualism: An International Seminar. Canada: University of Toronto Press, 1969.

Markman, B., Spilka, I. V., Tucker, G. R. The use of elicited imitation in search of an interim French grammar. Language Learning, 1975, 25, 31-42.

McNeill, D. Developmental psycholinguistics. In F. Smith and G. Miller (eds.) The Genesis of Language (15-84). Cambridge, Massachusetts: Massachusetts Institute of Technology Press, 1966.

Natalicio, D. Repetition as an Oral Language Assessment Technique. Educational Resources Information Center, ERIC Document ED 051 680, 1970.

Politzer, R. L. and Ramirez, A. G. An Error Analysis of the Spoken English of Mexican-American Pupils in a Bilingual School and a Monolingual School. Language Learning, 23, No. 1, June 1973, 39-62.

Taylor, B. P. The Use of Overgeneralization and Transfer in Learning Strategies by Elementary and Intermediate Students of ESL. Language Learning, 25, No. 1, June 1975, 73-107.

Zirkel, P. A. A Method for determining and depicting language dominance. TESOL Quarterly, 1974, 8, 7-16.

APPENDIX

TRANSCRIPTION OF THE TAPE

TABLE I

The model sentence is given followed by scoring of responses made by Maria, aged 6, Carolina, aged 7, and their mother

1. Her father is principal and he can't come.
   Maria: c
   Carolina: c
   Mother: c

2. The hottest day is also the most fun.
   • Maria: The hottest day is also the mostest fun.
   Carolina: c
   o Mother: The hottet days is also the most fun.

3. Get donuts and two gallons of chocolate milk.
   o Maria: Get donuts and two gallon chocolate milk.
   Carolina: c
   • Mother: Get donut and two gallon of chocolate milk.

4. They have got to finish their pictures quickly.
   o Maria: They got to finish their pictures quickly.
   Carolina: c
   o Mother: They have got to finish their picture quickly.

5. Happy except tired, he won the last race.
   o Maria: Happy 'cept tired but he won the last race.
   Carolina: c
   Mother: c

6. He found the bicycle his brother had lost.
   o Maria: He found the bicycle thathis brother had lost.
   o Carolina: He found the bicycle that his brother had lost.
   o Mother: He found the bicycle that his brother had lost.

7. The drummer has a drum bigger than himself.
   • Maria: The drummer has drum bigger than himself.
   Carolina: c
   Mother: c

8. Quietly the small boy woke up his brother.
   o Maria: Quietly the brother woke up his brother.
   Carolina: c
   Mother: c

9. Every recess she jumps rope and she swings.
   o Maria: Every recess she jumps ropes and she swings.
   o Carolina: Every recess she jump ropes and she swings.
   o Mother: Every recess she jump up and he swims.

10. Building nests in tall places, birds keep busy.
   o Maria: Building nests in tall places, bird keeps busy.
   o Carolina: Building nests in tall places, birds keep working.
   o Mother: Building nests in tall places, bird keeps busy.

11. The first to get there wins the race.
Maria: X
Carolina: c
Mother: c

12. Somebody passed the ball and he caught it.
Maria: c
Carolina: c
Mother: c

13. That band has got to march behind us.
o Maria: That band has^to march behind us.
Carolina: c
o Mother: That band has^to march behind us.

14. The teacher asked us to whisper not talk.
Maria: c
Carolina: c
o Mother: The teacher asked us to whisper not to talk.

15. She chose the tiny kitten the boy wanted.
o Maria: She chose the tiny kitten that the boy wanted.
Carolina: c
o Mother: She chose the tiny kitten that the boy wanted.

16. Santa Claus has some helpers and eight reindeer.
o Maria: Santa Claus has some helpers and eight reindeers.
o Carolina: Santa Claus has some helpers and eight reindeers.
o Mother: Santa Claus has some helpers and eight reindeers.

17. He didn't dare walk on the icy sidewalk.
Maria: c
Carolina: c
o Mother: He didn't dare walk on the sides icy walk.

18. My big sister wrote the soldier a letter.
Maria: c
Carolina: c
Mother: c

19. That man is captain and he's our neighbor.
Maria: c
Carolina: c
Mother: c

20. Racing is more exciting, but swimming is easier.
o Maria: Racing^more 'citing, but swimming is more easier.
o Carolina: Racing is more exciting, than swimming--it's easier.
Mother: c

TABULATION OF SCORES

	C	X	O
Maria	6	1	13
Carolina	15	0	5
Mother	9	0	11

C= Correct
O= Changed Sentences
X= Missed